

REMARKS

Claims 1, 4-10, 12, 14 and 16-18 remain pending in the present application. In view of the above amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

The Examiner has objected to claim 6 because of informalities: dependence on cancelled claim 3. *Office Action*, paragraph 2. Claim 6 has been amended to correct the error. Thus, applicants respectfully request the Examiner to withdraw the objection to claim 6.

The Examiner has rejected each of the pending claims under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,085,030 to Whitehead *et al.* ("the Whitehead reference"). *Office Action*, paragraph 3. The Whitehead reference discloses a component server architecture that enables consumer nodes of a network to interact with software components and services throughout the network. The interaction between the consumer nodes and various application is implemented by registering and locating requested components and services via a component registry. *Whitehead reference, Abstract*.

Independent claim 1 of the present invention recites "creating a producer component including a data object and a component module, the component module including information identifying the data object and an object handler to interact with the data object." As described in the specification, each producer component includes a data object and a component module (e.g., an IDB+ module). The IDB+ module is generated to include information about the data objects and to include an object handler to interact with the data object. Claim 1 further recites "registering the component module with an intermediary module." Thus, it is the IDB+ module which is registered with the intermediary module.

In contrast, the Whitehead reference does not teach nor disclose the creation of a component module which contains information identifying a data object, which contains an object handler to interact with a data object or the registering of such a component module with the intermediary module. The Whitehead reference teaches that the components are directly registered with the component registry. The creation of the component module and the registration of the component module with the intermediary module in the present invention adds a layer of abstraction which allows the consumer components transparent access to the data objects.

The Whitehead reference fails to disclose a component architecture wherein component modules are used as intermediaries between components (i.e., consumers and producers). The Examiner suggested that the description of "additional attributes and properties to specify configuration information and persistent data for the named component server" is equivalent to a component module. *Final Office Action*, page 3, section 5. The applicants respectfully disagree with that assertion as the above statement fails to illustrate usage of a component module to provide consumer requests with producer objects. The Whitehead reference specifically teaches away from the use of an intermediary, such as the component module, and discloses only direct interaction between consumer and producer components. Initially, consumer requests are sent to a component management service which are then forwarded to a component registry to locate the requested object. After the producer object is located, a reference to the producer is returned to the consumer directly. *Whitehead reference*, col. 8, lines 32-35. Furthermore, the component registry stores information about producer objects and not any intermediate components, which further illustrates the lack of teaching of

component modules as recited in independent claim 1.

In contrast, the present invention relies on component modules to provide uniform access to producer data objects which is not possible with direct consumer-to-producer architecture disclosed in the Whitehead reference. If the data object has been modified or updated then those changes must be tracked and synchronized by multiple consumer components in the system. In certain instances, the particular network consumer component may not have an API suited to access a particular desired producer data object. This problem is described in the Whitehead reference:

If the object models of the offer or implementation match the [native component object] NCO model 220 of the requesting application, the object reference is returned via paths 22 and 23; otherwise, the interface adapter repository 270 is used to bridge the object models via paths 16 and 19, as described further with reference to FIG. 6. Briefly, the interface adapter 270 sends a request to the interface adapter repository 256 (over paths 17 and 18 of CMS 280) to build an appropriate interface between the offered component and the object model of the requesting application. As a result, an offer is returned to the requesting application (via paths 22 and 23) that resembles a native component.

*Id.* at col. 8, lines 32-43.

The present invention, with the use of component modules simplifies the management of data objects in such situations. Even if the data object does not match the NCO model of the requesting application, the component module encapsulation will act as an intermediary between the consumer and the producer objects, without going through the convoluted process disclosed in the Whitehead reference.

Thus, the Whitehead reference neither teaches nor suggests "creating a producer component including a data object and a component module, the component module including

information identifying the data object and an object handler to interact with the data object" as recited in claim 1. Similarly, claim 10 recites "a component module including information identifying a first one of the components and an object handler to interact with a data object, the first one of the components including the data object." Claim 14 recites "each of the producer components including a data object and a component module, the component module including information identifying the data object and an object handler to interact with the data object." Accordingly, applicants respectfully submit that the Examiner should withdraw the rejection under 35 U.S.C. 102(a) of independent claims 1, 10 and 14 and all the claims depending therefrom.

**CONCLUSION**

In view of the amendments and remarks submitted above, the Applicants respectfully submit that the present case is in condition for allowance. All issues raised by the Examiner have been addressed, and a favorable action on the merits is thus earnestly requested.

Respectfully submitted,

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By:   
Michael J. Marcin (Reg. No. 48,198)

FAY KAPLUN & MARCIN, LLP  
150 Broadway, Suite 702  
New York, NY 10038  
(212) 619-6000 (phone)  
(212) 619-0276 (facsimile)